

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-065891

(43)Date of publication of application : 05 03 2002

(51)IntCl.

A63B 23/04  
A61B 5/00  
A63B 69/00  
// A61H 1/02

(21)Application number : 2000-264260

(71)Applicant : DAICH KOSHO CO LTD  
UNIV KANSAI MEDICAL

(22)Date of filing : 31 08 2000

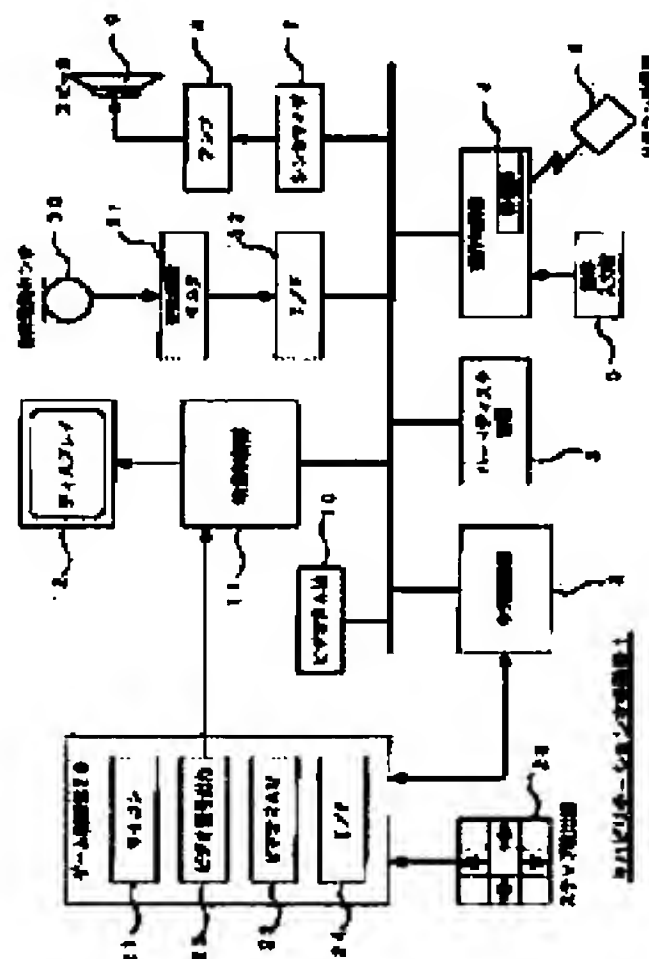
(72)Inventor : TOYOSAWA MASAO  
HAYANO KATSUMI  
KMURA MINORU

## (54) REHABILITATION SUPPORT DEVICE

### (57)Abstract:

PROBLEM TO BE SOLVED : To provide a rehabilitation support device using a step game for medical purpose.

SOLUTION : This rehabilitation support device is provided with a music output means for acoustically outputting the appropriate music, a step indication display means for outputting images for indicating steps for a user with the progress of the music, a step detecting means for detecting the step condition of the user, a gain computing means for counting the gain in response to the degree of coincidence of the step indication image with the step condition, a sensor for detecting the organism activity of the user such as heartbeat, an organism information monitor means for displaying the organism activity data obtained by appropriately making the data of the organism activity on the basis of the detecting signal of the sensor, a reference data setting means for setting the reference data in relation to the organism activity data, and an informing means for outputting an alarm when detecting the predetermined condition on the basis of a comparison of the organism activity data of the user with the reference data.





Y ` ˆ ˆ ˆ  
Y ˆ ˆ K X " y " " y ˆ  
" L i ˆ A - " y i s ˆ  
e b v w f • Ø o ˆ  
ˆ A p X e b v ˆ  
ˆ A O L X e b v w f ˆ  
x L ˆ ˆ - v a • Ø ˆ  
O L - ˆ f • Ø - ˆ ˆ  
ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ  
M ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ  
ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ  
ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ  
1 f ˆ - ˆ ˆ ˆ ˆ ˆ ˆ ˆ ˆ  
u B  
Y ˆ ˆ ˆ P L ˆ  
" ˆ u - ˆ ˆ A O L r ˆ  
ˆ ˆ ˆ ˆ ˆ x æ o " • ˆ  
Y ˆ ˆ R z ˆ ˆ P L ˆ  
" ˆ u - ˆ ˆ A O L r ˆ  
ˆ ˆ ˆ ˆ ˆ O L " y ˆ O ˆ  
• ˆ  
Y ˆ ˆ S z ˆ ˆ P ˆ R ˆ ˆ  
" e [ V x u - ˆ  
Ø I " L i t • Ø ˆ  
Y ˆ ˆ T z ˆ ˆ P ˆ R ˆ ˆ  
" e [ V x u - ˆ  
• Ø e | S L " ˆ o " ˆ  
Y ˆ ˆ ˆ ˆ P ˆ R ˆ ˆ  
" e [ V x u - ˆ  
p ˆ ˆ ˆ ˆ ˆ ˆ ˆ O L ˆ  
ˆ ˆ ˆ " y e | ˆ  
i t • Ø - ˆ  
Y ˆ ˆ V z ˆ ˆ P ˆ R ˆ ˆ  
" e [ V x u - ˆ  
L i " A i X e b v ˆ  
' p " w L ˆ X e ˆ  
Q [ x L L i t ˆ  
Y ˆ ˆ W z ˆ ˆ V L ˆ  
" u - ˆ ˆ A O L Q [ ˆ  
Y o " L i ˆ ˆ " y " ˆ  
ˆ f X e b v J p ˆ  
[ ˆ X • Ø | p ˆ  
• ˆ  
Y ˆ ˆ ˆ P ˆ R ˆ ˆ

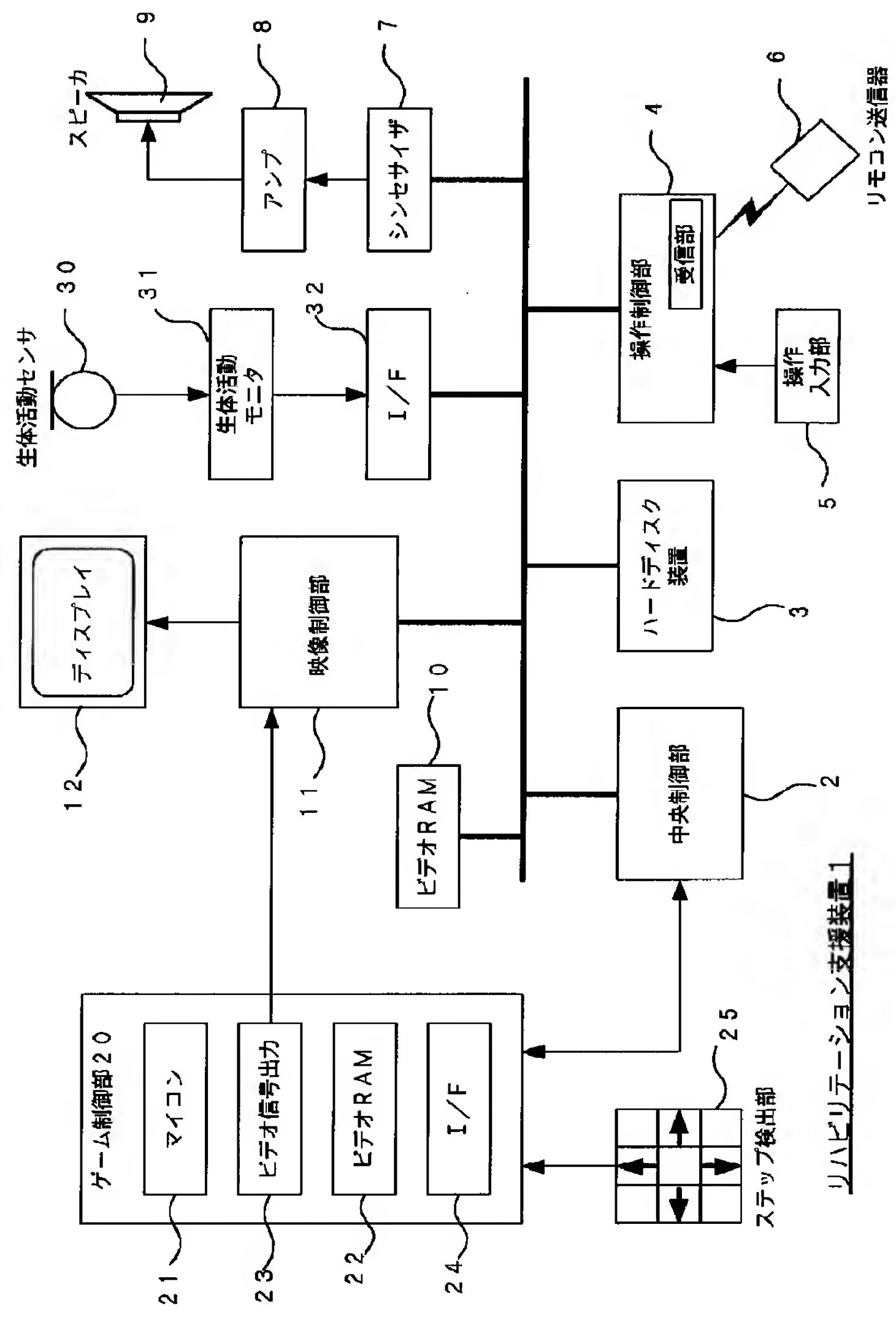


5										6											
M	Q	o	"	Q	R	A	n	Q	P	~	y	O	O	Q	R	z	X	e	b	v	w
Q	T	^	t	} F	C	R		Q	^	e		)	C	R	N	Q	"	ø	X	•	ø
n	A	Q	[	S		X	i	h			ø	B	)	Q	"	»	"	e	b	v	w
Q	T	"	A	p		"	Q	O	b	v	ç	ø	B	{	"	{	X	n	ç	~	A
}	o	g	A		†	u	A	X	e	^	ø	B	X	~	n	L	A	w	f	f	[
E		S	J		°			f	[					æ	"	"	A	e	%	^	"
y	O	O	P	X	Q		z	E	Z		10	«	X	e	v	a	°	X	e	b	v
p	†	æ	A	S	E	~		æ		†		u	I	v	u	v	u	v	u	E	~
	fi		j	^	P	"	I	ø	B	»		u	P	v	"	ø	-	ø	°	u	v
f	[	^	»	R	o	"	•	j		h		æ	f	A	u	ø	ø	v	-	ø	ø
.	q	r	Q	†	æ	«	-	-	fi	~		K	f	¥	-	ø	P	o	~	ø	ø
Q		]		•	O	~	~	"	A	æ		[	X		g	A	"	~	æ		
"	A	o	T	R	»	T	O	'	v	Z	20	ø	B	"	o	{	{	æ	-	"	A
«	ø	B		z	S			v	Z			x		>	a	l	I	~	A	%	X
L	A	S	ç	~	z		n	[	h	f		æ	ø	B	'	ç	~	A	X	e	b
y	O	O	Q	O	/	A	<	N	"	~		ç	ø	~	f	B	X	C	P	Q	¥
a	q	"	'	"	y	I	S	Y	"			"	~		ø						
[	~	ç	ø	B	j	»								ø							
æ	T	A	U	j	'	A		C	U	V		y	O	O	Q	S	z	X	e	b	v
i		fl		ø	~	Z	T	"	M			w	Q	"	A	"	y	K	t	S	w
~	[	^		V		L	"					w	f	f	•	ø	Q			L	'
f	<		%	"	y	"	n	A	t	†	30	e	Q	S	f	[	^	S	fl	~	Q
I	s	[	J	X	P	z	A		'	°		v	Q	w	t	ç	>	q	l	%	i
Y	O	K	p	»	ø	f	A	i	K	X		y	~		ø	>	B	s	~	K	X
~	ç	ø	B	æ	f	.	~	'	I	ç		~	ø		ø	ø	fl	"	u	f	Q
L	A	"	y	-	~	~	~	~	I	»		fl	ø	ø	X	ø	ø	~	~	[	^
f	[	^	i		Y	"	ø	y	"			y	f	[	^	Q	T	z	C	R	P
	S		Q	"								¥	ø	~	«	X	e	b	°	Q	°
y	O	O	Q	Q	z	x		X	u	P	40	ø	~	~	ø	e	b	-	u	X	e
v	Q	[	†	æ	ø	ø	X	S	b	v		n	>		X	ø	v	°	u	»	f
ø	%	"		A	~	fl	æ	M	"	y		g	)	b	r	W	J	ø	B	e	b
w	f	f	[	^	~	fl			o	I			"	†	ø	I	M	o	"	C	Q
—	-	Y	—	~	"	Y	~	Y	I	<		æ	ø	B	A	f	B	X	X	P	v
—	~	N	—	ø	B	»	~	A	—	—		ø	B	P	...	R	"	¥	~	«	~
		L	•	ø	B	»	~	A	—	—		S	~	ç	ø	X	e	b	°	u	»
		M			A		~	C	—	—		æ	~	ø	ø						

y	O	O	Q	U	z	}	C	R		Q	P	傳
t				s			~	o	"	•	Ø	專
f	f	[	^		~	P	'	^	'	I		專
	æ	]	`									專
u	f	[	^	~	»	Œ		L		L		專
^	~			^	¢	~	r	f	I	q	`	專
>	B	»	Œ			`	~	A	X	e	b	專
	[		¥	f	專							
y	O	O	Q	V	z			¥				
Q	[		S			Q	O		}	C	R	專
	¥	f					s		~	A	Q	專
p			"	¥		«	X	e	b	v		專
S				~	X	e	b	v		o		專
°	u	i		o	°	u	j	~	»			專
		S			Q	'				M		專
	L			"		Y			w	f		專
Œ	·		—	`	Z		~	¢	>	B		專
f			~	~		»			—			專
	«			—	~	-	A		—	o		專
C	P	Q		¥	專							
y	O	O	Q	W	z					n	r	專
"	a	A	{		{	Æ			n	r		專
~	A	e	¥	<		†	~		fi			專
¤	¢	~	A	—	Œ		e	¥	<		"	專
r		e	[	V			x			u	~	專
e	[	V				K	p	Æ				
y	O	O	Q	X	z		n	r		e	[	專
	j		Ø	¢	"	a	t	"	'			專
"	A	a	t	j	"			"		T		



y } E





t g y 4

(51) Int.Cl.<sup>7</sup> fl ° L  
` U 1/02

e h  
` U 1/02

e [ ] Q 3  
m

(72) > "  
s i k